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New Members of the Profession

ON another page we publish a list of 139 names of new graduates who have just been admitted to membership of the Royal College of Veterinary Surgeons. Some have been noted in these columns already at the time of graduation from their individual universities, but it seemed useful, none the less, to print all together this year's new members R.C.V.S. so that the accession of these veterinary surgeons to the profession could be noted as a whole.

A glance down the list illustrates the variety of nations which now send their students to our colleges. India, Pakistan, Cyprus, Trinidad, South Africa and Kenya may all be noted, and it may be observed that the addition to qualified personnel, and the consequent spread of modern disease-control and husbandry methods in all these countries are not least among the benefits spread by British veterinary education.

Where race is concerned the list of new members shows also that the study of veterinary science remains popular in Scotland, nearly 25 per cent. of the total number of graduates coming from north of the Border. For the B.V.A. which until this year had Scotsmen for all its principal officers save that of honorary treasurer, this may be deemed a healthy sign for the future!

It may be assumed that some of the recently graduated veterinarians will take up research or teaching, while others will join the Government, Colonial or municipal services; but those who decide upon entering private practice will contribute some easement, and a valuable one, to the pressing difficulty of obtaining qualified assistants. It is common knowledge that many principals are worked to excess in these days, so that every fresh influx from the colleges into the profession may be hailed with relief. Week by week our classified advertisement columns bear ample testimony to the need for qualified young men or women, and certainly the inducements held out to them are greater than they have ever been.

But whatever branch of the profession each new veterinary surgeon decides to enter, we wish him or her well. Our calling is one of the oldest in the world as it is among those truly indispensable. It provides the means of serving the community, of helping to diminish under-nourishment and want, of advancing the frontiers of knowledge, while at the same time providing a congenial and dignified means of livelihood. All their older colleagues will bid the new veterinarians God-speed upon their way, and welcome the contributions—professional, practical and intellectual—which they will make as the years go by.

Trembles in Piglets

BY

N. H. BROOKSBANK

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Introduction

THE condition known as Trembles in young pigs may affect whole litters or only some individuals of a litter, and is characterised by symptoms of trembling or shivering from the time of birth. The degree of trembling varies in intensity, usually affecting the hindquarters though sometimes the whole body. Death, which may occur within a day or two after birth in those severely affected, is probably caused by lack of nourishment since these piglets have great difficulty in feeding. Those showing less severe symptoms appear normal when asleep or lying down, and tremble only when roused or made to move. Not all individuals in a litter are affected to the same degree and some members may not show any symptoms. The milder the trembling the greater is the chance of recovery, which may take up to 20 days.

Hughes & Hinman (1936) describe the symptoms in some members of two litters which gradually recovered. They could not suggest a cause but mentioned that a similar condition had been seen in guinea-pigs. They also referred to an article by Hutt & Child (1934) on tremors in chicks with symptoms varying from slight shaking to inability to stand, which was ascribed to hereditary factors. Knilans (1936) reported on five litters affected out of a group of 12, and although unable to find a cause, he suggested that the condition might be dietetic in origin. Lamont (1950) investigated a case and mentioned a possible resemblance to Krabbe's disease in man where there is an immaturity of muscle fibres.

Investigation

The investigation covered nine separate outbreaks and on some premises two or more litters were affected. The condition occurred during a period between March and September, but it is not suggested that only in this period of time could litters become affected.

The wide variety of breeds and cross-breeds amongst the parent stock suggested that the cause of the condition in the young pigs was unlikely to be genetic in origin. The breeds of the dams included Large Black × Tamworth, Large White × Large Black, Welsh, Large White × Saddlebacks. All these dams were mated to Large White boars. In only one case were the sows and the boar of the same breed and in this instance they were not closely related.

The diet fed to the adult pigs varied from farm to farm. On some premises proprietary foodstuffs alone formed the ration, on others this type of food was supplemented with mixed corn. In two cases the main ration was household waste, having little or no meat content, together with a small quantity of proprietary food. In only one instance, when two gilts which were fed on fodder beet and allowed to graze, was the diet considered to be deficient in essential foodstuffs.

The affected litters were born to animals of different ages and might be their first or later litters.

No lesions were noted in specimens examined at *post-mortem* and bacteriological examination gave negative results.

It was soon evident that there was one factor common to the majority of outbreaks. In eight of the nine cases it was reasonable to assume that swine fever virus may have been implicated. The disease had been officially confirmed on five of the farms. Two further premises were in a group of small piggeries which either backed on to each other or were part of a row. One of the two premises was contiguous to a confirmed case and also had a suspected case on another side. The second premises were only about 30 yards away. One farm had been under suspicion of having swine fever since two lots of stores which were sold off appeared to be responsible for outbreaks of disease on the premises to which they had been moved.

In only one case was there no apparent close contact with swine fever, though investigation of one of the swine fever confirmed cases revealed that a boar had been used on both premises.

The number of premises in Cheshire and a surrounding area which had litters affected with trembles had been more numerous in 1954 than for many years. Over the same period of time there has been a widespread epidemic of swine fever in the area.

Discussion

During recent years a new concept has arisen on the rôle in which environmental conditions might have an effect on the embryo since the studies of the effect of maternal rubella infection on the human foetus (Gregg, 1945 ; Albaugh, 1945). Swan *et al.* (1946) investigated the condition in Australia and showed that certain malformations of the embryo developed if the mother was affected with rubella during the first two months of pregnancy.

Further work by Landauer (1948), Wolff (1948), and others has been done on the production of malformations such as applying various chemicals or exposing to brief doses of X-rays minutely localised regions of chick embryos.

It has been found that there are periods when certain cells of the embryo are in an excessively rapid stage of growth compared to other cells of the foetus. These periods are known as " sensitive periods " and at these times the cell groups in rapid division become temporarily susceptible to some outside influences. Not all cell division groups are in " sensitive periods " at the same time but the periods do occur in early embryonic life. When the " sensitive period " for a particular group of cells has passed it has not been possible to induce malformations by applying agents to those cells.

Where there is a placenta around a foetus it is evident that not all kinds of substances, such as proteins, can

cross to the foetus and affect the developing structures. A virus such as rubella, however, can cross the placenta. Swine fever virus is also capable of reaching the foetus, as shown by the death of foetuses when the virulent form of the virus infects a pregnant sow.

In the investigation it was difficult to establish when swine fever virus was introduced on to the farms and to the dams of the affected litters. From two cases, however, there was reasonable evidence to suggest that the dams picked up the virus during the third to fourth weeks of pregnancy. During these weeks the embryos have reached a stage of development when certain parts of the brain, particularly the diencephalon, are rapidly developing. It is reasonable to suppose that at this time portions of the area, especially the corpus striatum, are in the "sensitive period." The pathology of trembles reveals that the cells of the corpus striatum show degeneration, loss of shape and vacuolation (Done, 1954).

When the "sensitive period" of the diencephalon is concluded swine fever virus would be likely to attack other cells and thus infection of the dam at any other period of pregnancy would not produce the same specific lesions and the clinical symptoms of trembles would not develop.

Swan *et al.* noted that in the rubella outbreak the virus was very mild in the symptoms which it produced in the mother. Similarly, in the investigation on trembles the outbreaks of swine fever were found to be very mild. On two premises the symptoms were only observed in suckling piglets and young stores. On another premises some stores died and as swine fever was suspected restrictions were imposed but were withdrawn in three weeks as no pigs were ailing. Restrictions had to be reimposed a week or so later when death occurred among the pigs and on this occasion swine fever was diagnosed. A fourth place had only one lot of stores affected but had two cases of trembles some months later. There were also the three premises where the disease was not confirmed although suspected of being present.

Swine fever has been implicated in eight of the nine cases investigated but it is not suggested that this virus is the sole agent that can be responsible. For the development of trembles it is suggested that the nerve cells of the corpus striatum must be in a "sensitive period"; the agent must be capable of passing the placental barrier, and must have little systemic effect on the host and the embryo. The agents which fulfil these requirements are viruses of low virulence but capable of infecting the dam and the embryo. A virus which would be particularly adapted to cause trembles in young pigs would be one which was neurotrophic in character. This class of virus includes swine fever, Aujeszky's disease and others such as porcine encephalomyelitis (Teschen disease).

Summary

Out of nine outbreaks of trembles which have been investigated swine fever virus could be implicated in eight. It is suggested that neurotrophic viruses could produce the condition provided they were of low virulence and affected the foetuses during a particular period of pregnancy.

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VETERINARY CONTRIBUTION TO BREEDING SUCCESSES

The important contribution made by veterinarians to the further improvement of breeding by A.I. is referred to in the current bulletin of the Hampshire Cattle Breeders' Association. Having referred to the field trials of artificial insemination of pigs an article continues :

Mr. D. H. L. Madden, M.R.C.V.S., our veterinary surgeon, has been responsible for the technical work and its merit can be assessed by the fact that the conception rate for fresh semen rose by 3 per cent. over 1953 and for deep freeze semen by 2 per cent., the latter reaching an average of 62 per cent.

In addition it would appear that the progress forecast last year in the selection of semen is slowly materialising.

Mr. L. E. A. Rowson, M.R.C.V.S., of Cambridge, has continued to give full co-operation in our endeavours, in association with his colleague, Mr. C. Polge—we are indeed grateful to both of them.

Deep freeze semen made nominated service to each and any of the bulls standing at the centre possible. About 7·5 per cent. of all first inseminations are nominated, this indicating the active interest of the owners in the breeding of their herds and in the bulls available for use. It is interesting to record that all the bulls have some nominations—a possible compliment to the work of the Bull Selection Committee. Deep freeze also made the provision of service for minority breeds available—often at the urgent behest of the Breed Society concerned. The contribution to beef from dairy herds is indicated by the fact that 1,398 first inseminations to Aberdeen Angus, and 824 to Hereford, have been carried out since January 1st this year, to date.

Dr. Joseph Edwards, in his recent paper to the Farmers' Club, indicated the part which A.I. had played in effecting improvement of the national herd and the part it could play in the future. The movement has naturally been the subject of criticism and suspicion by breeders and others—some informed, some ill-informed—and in some instances, obviously biased.

Bull breeding herds represent a small minority of breeders and outstanding bulls in any breed appear to be scarce.

It would seem that the time might be opportune for the National Cattle Breeders' Association to meet with representatives of the A.I. Centres to discuss the contribution which can be made by the Breed Societies and artificial insemination to the further improvement of the national herd, to pedigree breeding and its continued expansion—and to the breeding of that tremendous population of breeds native to this country across the seas.

It is a little disconcerting when expensive arrangements are all complete for despatch to Australia of an initial experimental supply of 2,000 doses of deep freeze semen—divided among six breeds—to find the licence for export for three of the breeds still not forthcoming after a considerable period of time, apparently as a result of action or inaction of the Breed Societies concerned.

Onychomycosis in Cats Infected by *Microsporum canis* Bodin

BY

C. J. LA TOUCHE

From the Departments of Bacteriology, Leeds University, and Dermatology, Leeds General Infirmary

UPWARDS of 25 cats and kittens which were naturally infected by *M. canis* have been examined for evidence of onychomycosis since this was first recorded (La Touche, 1953). The majority of these have been under observation over a period of at least three to six months, and have been examined in Wood's light at relatively frequent intervals.

The claw which in July, 1953 was observed to be fluorescent in Wood's light and microscopically positive for mycelium, remained so for approximately six months. On February 4th, 1954 in the same cat, the fifth claw on the right posterior paw was observed to be also mycotically involved by *M. canis*, but by the end of March, 1954 showed no further evidence of this when examined in Wood's light, and neither of these claws has exhibited fluorescence since then.

More recently, three further cases of onychomycosis in cats infected by *M. canis* have occurred in the Leeds area. In the first, a female aged about five months, onychomycosis due to *M. canis* developed in the second claw of the right posterior paw over a period of about four months while it was under observation; in the second, a three-month-old male, no less than six claws distributed between the four paws showed mycotic involvement due to *M. canis* at the time that it was admitted, and likewise four more have shown this since then; in the third, a female of about three months, the first and second claws of the left posterior paw showed this extension of infection due to *M. canis*.

Appearance of infected claws in Wood's light

The colour of the fluorescence exhibited by these 15 infected claws when examined in Wood's light was in various shades of green and in various degrees of brightness, as is the case with hairs and whiskers which are infected by *M. canis*. A few of the claws were uniformly fluorescent, others only in part; for instance, two showed fluorescence only at the apex and two others along the inferior border only. The dorsal border was involved in the majority and in some also the proximal or coronal end; in these two sites the fluorescence was especially brilliant, being a brilliant pastel green. When surface shavings were made from the fluorescing parts, the new surfaces thus exposed also fluoresced in Wood's light.

Appearance of infected claws in daylight

When at first onychomycosis due to *M. canis* was discovered in a cat (La Touche, *loc. cit.*,) whitish opacities (leuconychia) were a striking feature of the claw concerned and provided a marked contrast with the uniformly pellucid grey colour of the other healthy claws (Fig. 1). This leuconychia was probably in part due also to the presence of another fungus, *Aspergillus terreus*, which was associated with *M. canis*, at least in the more superficial layers of the claw. Another heavily infected and uniformly fluorescent claw in which only *M. canis* was found is shown in Fig. 5.

Subsequently, examination in daylight of the claws of more than 20 cats with microsporosis and 20 cats not known to have had this infection has shown that various degrees of leuconychia occur in a small proportion of cat claws irrespectively of whether or not onychomycosis due to *M. canis* is present. It would seem therefore that this feature is not of diagnostic value in connection with onychomycosis due to *M. canis*.

Microscopic features of infected claws

Shavings taken parallel to the surface of the claw in the case of seven of the Wood's positive claws show that mycelium is present in both the superficial and deeper layers of these claws. The most striking feature of this mycelium is the arrangement of the main hyphae, which is parallel to the long axis of the horny cells, and therefore also parallel with the long axis of the claw itself; this is in marked contrast with the irregular growth of *M. canis* mycelium in the scales, (Figs. 3 and 4 respectively). In these claw shavings the hyphae are seen to be relatively sparingly branched, some of the branches being directed towards the apex of the claw, others towards the coronal end. Anastomoses by means of transversely or obliquely running branches occur between the parallel hyphae. In some of the shavings many of the parallel hyphae are intercellular, while others appear to run through the cells. Where the growth of mycelium is dense, they tend to overlap, forming bundles. Here and there, in surface shavings, broad, closely septate and also laterally apposed hyphae appear to have undergone some degree of fragmentation, and a few mosaic-like patches of spores may be observed.

In transverse sections of a claw which was removed with part of the terminal phalanx it may be seen that the mycelium can penetrate to all levels of the keratinised part of the claw which remains unstained when the section is stained by P. A. S. and haematoxylin (Fig. 6). In these sections also, many of the hyphae are cut transversely, appearing as small red circles situated both intracellularly and extracellularly; others are seen cut obliquely. The outer layer of the section shows a dense growth of mycelium.

Extent of infection by *M. canis* on other parts of the hair-bearing surface in cats with onychomycosis

Of the four cats which have presented onychomycosis due to *M. canis*, the first, as stated previously (La Touche, *loc. cit.*), had only one fluorescent hair in the left ear when its infected claw was first detected, but when it was admitted 18 months before this a large

FIG. 1.—Infected claw between two normal claws.

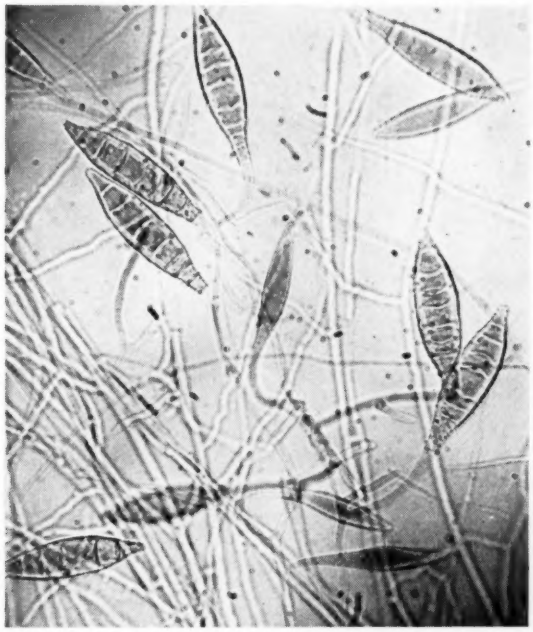

FIG. 2.—Macroconidia of *M. canis* in microculture from infected claw. Stained by Cotton blue × 514.

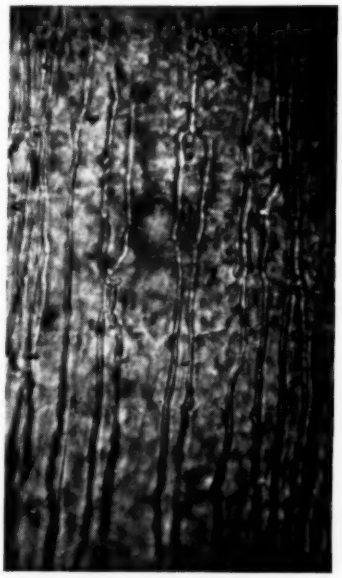

FIG. 3.—Mycelium of *M. canis* in claw shaving. Unstained. × 514.

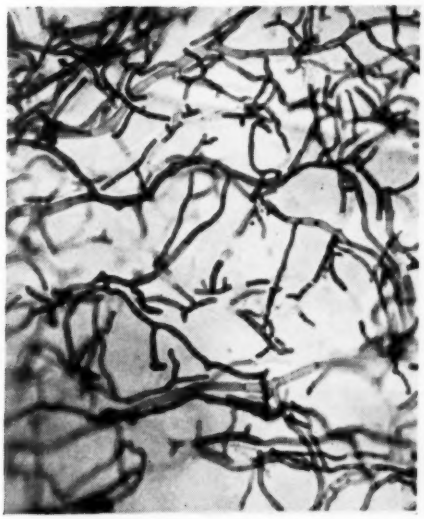

FIG. 4.—Mycelium of *M. canis* in skin scale. Stained by P.A.S. × 514.

FIG. 5.—Upper claw heavily infected by *M. canis*, lower claw slightly infected.

FIG. 6.—Upper part of transverse section through infected claw. (Fungus on right of section as patches of dots and shaded strip along periphery). Stained by P.A.S. and Haem. × 50.

FIG. 7.—Part of Fig. 6 showing hyphae in transverse section and cut obliquely and distributed at all levels in the keratinised part of the claw. × 200.

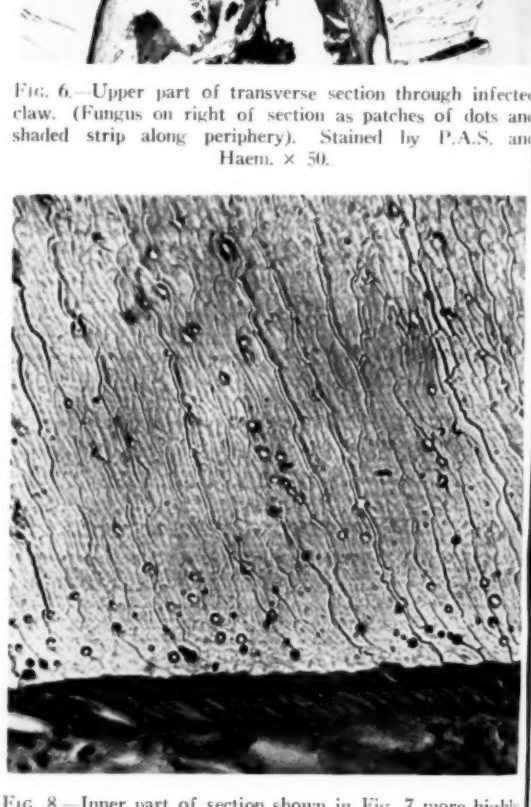

FIG. 8.—Inner part of section shown in Fig. 7 more highly magnified to show hyphae cut across (shown as rings). The vertically running lines are lines of cleavage in the nail substance. × 514.

area on its back showed widespread involvement of the hair, as was also the case on other parts, including the face and abdomen. Of the three more recent cases, the three-month-old male was the most heavily and extensively infected: at least eight whiskers were involved, as well as much hair on the face, ears, neck, back, tail, abdomen, inner aspects of thighs, axillae and all paws, including all the toes. The female of about five months showed a relatively moderate amount of infection, which included hairs on the face, ears, back and all four paws, including several toes (one with infected claw). In the female of about three months, infected hairs were present on the bridge of the nose, left eyebrow, right ear and inner aspect of the right thigh, as well as on all the toes except one.

Culture of infected claw material

Cultures were made from the claws of all four cats, and the resultant strain obtained corresponded in each case with that obtained from the infected hairs of these cats; thus for the first cat it was a eugonic non-pigmented strain, and for the other three a eugonic strain which produced a deep yellow pigment on the reverse of the culture. The culture media used were the standard Sabouraud media in general use. The difficulty of obtaining growth from the intra-ungual mycelium uncontaminated by spores from infected hair was obviously great, but care was taken to minimise this risk by culturing only deeper shavings taken after the claw had been carefully swabbed with 70 per cent. alcohol, and in one case deep shavings were cultured in hanging drops so that the mycelium might be observed actually growing into the surrounding culture medium from the nail substance. Microscopically, the structural features of these cultures agreed in all respects with those found usually in eugonic cultures of *M. canis*. The photomicrograph shown in Fig. 2 was taken from a hanging drop microculture obtained from a fragment of infected claw. It shows the spindle-shaped thick-walled, multiseptate macroconidia which are characteristic of *M. canis* cultures.

Discussion

It is too soon to express an opinion categorically as to whether or not onychomycosis due to *M. canis* is of frequent occurrence; but that this is probably so is suggested by the foregoing record of four in 25 cats which have had, or still have, this condition associated with infection of other parts of the hair-bearing surface. Doubtless further cases will present themselves if in future the claws of cats as well as the fur and whiskers are examined in Wood's light if the presence of microsporosis due to *M. canis* is suspected. As for the duration of the condition, no conclusions can be reached since 12 of the 15 claws concerned still show various degrees of fluorescence in Wood's light, and one has been removed. It is, however, permissible perhaps to suggest that in some cases at least the partial shedding of the claw which occurs from time to time may progressively diminish the amount of fungus in the claw, while in others onychomycosis becomes chronic inasmuch as new claw material may become invaded as soon as it becomes keratinised. These two alternative sequelae do certainly occur in cases of human onychomycosis due to various species of Trichophyton in which the affected nails have to be treated surgically.

Acknowledgments.—My thanks are due to Dr. Ingram, Head of the Department of Dermatology of the General Infirmary, Leeds, for his permission to publish this information, to my colleagues in this Department for referring to me the human patients whose cats have been the subject of the foregoing observations; to Mr. K. G. Towers, Lecturer in Veterinary Science in Leeds University, for removing the claw from which sections were made; to the Department of Clinical Photography for the clinical photographs reproduced in Figs. 1 and 5, and for processing my photomicrographs, and finally, to my technician, Mr. R. Forster, for his technical assistance throughout this work.

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"RADIONIC THERAPY"

A correspondent writes:

Writing about the orthodox often brings the veterinary journalist an interesting glimpse of the unorthodox. For instance, publication of a sober note to accompany illustrations of slipped disc brought a letter from a lady whose Pekingese had suffered from paraplegia. "Having heard so much about Radionic Therapy," she wrote, "I at once gave it a trial and within a week he was showing every sign of improvement." No other treatment was given, and to-day, she added, no one would know that the dog had ever been unable to walk.

Radionic Therapy was new to me, and so I accepted her invitation to write for further details. Back came a printed leaflet, bearing the address of a Manor in the West of England. "Every part of the human body has a particular rate of vibration and electrical instruments have been designed which can check these rates and, where necessary, apply treatment to restore vibrations to their correct frequencies. In effect, stimulate any portion of the body to tune-in to its proper wave-length. . . Not a cure-all nor (able) to revitalise dead tissue but when a cure cannot be effected a disease may be arrested and pain alleviated."

The leaflet went on to emphasise that cure was not brought about by faith or suggestion, for "animals readily respond to treatment."

My correspondent had not taken her Pekingese for treatment, for that is not essential. Nor had the Radionic Therapist stirred from his Manor. It was done by post. The leaflet requests an account of the patient's illness, and a brief record giving the patient's age, sex, and past medical history. In this case, the illness was described as a "bad go of rheumatism." The essential accompaniment was "one spot of the individual's blood on a piece of white blotting paper measuring 1 × 1½"," and from this diagnosis was made and treatment initiated.

The diagnosis, in this case, involved the axis, I believe. Recovery was quick and uneventful; the owner mystified but delighted, and a firm convert to—Radionic Therapy. G.P.W.

Thiambutene-thiopentone Anaesthesia for Hysterectomy in Pyometra of the Bitch

BY

L. N. OWEN

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Introduction

SUCCESSFUL results from hysterectomy in cases of uterine hyperplasia with pyometra in the bitch depend on a number of factors, among which are toxaemia, shock, haemorrhage and anaesthetic intoxication. When barbiturates are used for anaesthesia the amount required is reduced in relation to the degree of toxaemia existing. While only a reduced dose of pentobarbitone is required for anaesthesia in these systemically ill dogs, the period of anaesthesia and the post-anaesthetic recovery period are often prolonged, and occasionally the dog may die in a post-operative state of narcosis because of one or more of the factors mentioned. With the object of reducing the period of anaesthesia and subsequent narcosis, thiambutene hydrochloride ("Themalon") has been used as a premedication agent.

The choice of the anaesthetic to be employed is important, and in this series of observations thiopentone sodium was used. Albrecht & Blakely (1951), reviewing the anaesthetic mortality in a large series of surgical cases in the dog at the Angell Memorial Veterinary Hospital, Boston, stated that of the three anaesthetics, ether, pentobarbitone sodium and thiopentone sodium, the last appeared to be the safest and they always used it in "poor-risk" cases. Thiopentone has the disadvantage, however, that it is an ultra short-acting anaesthetic, and where prolonged surgery is undertaken repeated injections may be necessary. It has been found that premedication with thiambutene has the advantages of reducing the amount of thiopentone required, of increasing the anaesthetic time available, and reducing the period of post-anaesthetic recovery.

Method of Anaesthesia

Irrespective of the clinical condition of the bitch, thiambutene in a dose of 2 mg. per lb. (4·5 mg. per kg.) was given by intravenous injection over a period of one minute, and 10 to 15 minutes later a slow intravenous injection of thiopentone was given during approximately three minutes. Anaesthesia was induced to the stage where abolition of the pedal reflex just occurred but where a very sluggish conjunctival reflex remained. Termination of anaesthesia was considered as that point at which a brisk pedal reflex had returned.

Materials

Thiambutene solutions were prepared by dissolving tablets of Themalon (50 mg.) obtained from Burroughs Wellcome & Co., in sterile water to produce a concentration of 25 to 100 mg. per ml. according to the dose required; the volume of solution injected was 0·5 to 5·0 ml. The solution of thiopentone sodium was freshly prepared with Pentothal, 64 mg. per ml. (1 grain per ml.) obtained from Abbott Laboratories, Ltd.

Clinical Picture of Cases Reviewed

In the 22 non-selected cases of pyometra dealt with, the age ranged from 4 to 13 years and the bodyweight from 13 to 124 lb. In those cases in which a reliable history was available, the bitch had been in oestrus a few weeks (nine or less) prior to the onset of illness.

In five cases the cervix was closed, in four there was an intermittent vulval discharge, and in 13 this was persistent. Symptoms in all cases included anorexia and polydipsia, and listlessness was usually present. In those in which the cervix was closed, vomiting was a feature, and in addition one of them was severely dehydrated. In the four where an intermittent vulval discharge had occurred, three were vomiting, one of these dogs being very dehydrated, while two others showed marked loss of flesh. Of the 13 cases with a persistent vulval discharge, one bitch was so weak that she was unable to stand, three cases were vomiting and one had in addition a uterine inguinal hernia; the others were not severely ill.

Results

Premedication with thiambutene was satisfactory in all except one case; eight developed deep narcosis and 14 medium narcosis. Temporary spasticity and apnoea occurred in one case.

Induction of anaesthesia by the very slow injection of thiopentone was satisfactory in all cases. The doses are shown in Table I and ranged from 0·028 gr. per lb. to 0·154 gr. per lb., with an average of 0·055 gr. per lb. The amount of the thiopentone necessary was reduced on account of the clinical state of the animals and because of the premedication with thiambutene.

The duration of anaesthesia in 17 cases ranged from 24 to 35 minutes, with an average of 29 minutes. The other five dogs were anaesthetised for periods of 8, 17, 20, 42 and 45 minutes respectively. In the case of the dog which was anaesthetised for eight minutes, it was thought that the injection of thiopentone had been made too quickly, for a second injection, given as the dog began to recover from the anaesthetic, produced anaesthesia for a further 16 minutes. In nine cases the duration of anaesthesia was adequate for the completion of operation. In 13, however, recovery usually occurred during suturing of the peritoneum or skin, and seven of these dogs were given very light ether anaesthesia for periods of 5 to 15 minutes (average eight minutes)

TABLE I

PROTOCOLS OF 22 DOGS ANAESTHETISED WITH THIOPENTONE AFTER PREMEDICATION WITH THIAMBUTENE (2 MG. PER LB.)

Case No.	Animal	Thiopentone		Duration of Anaesthesia (minutes)	Post-operative ability to stand	Remarks
		Total Dose (grains)	Grains per lb.			
1	Cocker Spaniel (33 lb.) ...	3·5	0·107	30	3 to 4 hr.	—
2	Great Dane (124 lb.) ...	3·5	0·028	45	30 min.	—
3	Chow (52 lb.)	2·5	0·048	33	40 min.	Death 12 hr. later.
4	Terrier (70 lb.)	4·0	0·057	8	10 min.	Further 16 min. anaesthesia with 3 grains thiopentone.
5	Spaniel cross (60 lb.) ...	3·5	0·058	17	45 min.	Further 14 min. anaesthesia with 2 grains thiopentone.
6	Cocker Spaniel (33 lb.) ...	2·75	0·083	25	1 hr. 10 min.	Death 11 days later.
7	Cocker Spaniel (42 lb.) ...	2·5	0·06	32	*	—
8	Labrador (62 lb.) ...	4·5	0·072	20	*	Further 15 min. anaesthesia with 3 grains thiopentone.
9	Terrier (19 lb.)	1·5	0·079	27	*	—
10	Terrier (43 lb.)	1·5	0·045	31	*	Temporary apnoea after thiambutene.
11	Terrier (26 lb.)	0·75	0·03	25	*	—
12	Pomeranian (13 lb.) ...	2·0	0·154	24	Never	Death about 12 hr. later.
13	Cocker Spaniel (36 lb.) ...	1·75	0·049	28	*	Further 14 min. anaesthesia with 1 grain thiopentone.
14	Cocker Spaniel (34 lb.) ...	2·0	0·059	33	2 to 3 hr.	Momentary barking during recovery.
15	Spaniel cross (24 lb.) ...	2·0	0·083	32	35 min.	—
16	Cocker Spaniel (40 lb.) ...	3·0	0·075	30	40 min.	Further 12 min. anaesthesia with 1 grain thiopentone.
17	Terrier (18 lb.)	2·0	0·11	35	Never	Death about six hours later.
18	Fox Terrier (35 lb.) ...	1·0	0·03	35	20 min.	—
19	Spaniel (40 lb.)	2·0	0·05	28	*	Further 15 min. anaesthesia with 1 grain thiopentone.
20	Terrier (20 lb.)	1·0	0·05	25	3 hr.	—
21	Bulldog (40 lb.)	2·5	0·063	42	*	Nalorphine injected.
22	Terrier (27 lb.)	1·5	0·056	30	10 min.	Nalorphine injected.

* Animals left to rest during the night ; complete anaesthetic recovery had occurred the following morning.

to enable suturing to be completed ; the other six dogs were injected with additional quantities of thiopentone (1 to 3 grains) into the lingual vein.

The pulse rates recorded in 10 dogs during anaesthesia varied between 90 and 160 per minute. Respiratory rates fell during anaesthesia, varying between 14 and 24 per minute, but at no time gave cause for concern. In some animals a slight reflex response was produced by traction on the mesovarium but this is frequently encountered when other methods of anaesthesia are employed.

Recovery from anaesthesia was rapid and significantly quicker than that observed when either thiopentone or pentobarbitone are used alone. Raising of the head occurred a few minutes after the end of anaesthesia in nearly all dogs. During the recovery period the animals were left undisturbed in a warm place and it was noted that seven were able to stand 25 to 70 minutes later ; in fact one dog was walking 10 minutes after the operation had been completed. Recovery was quiet with no limb movement or whining except in one case in which ether anaesthesia was used during completion of the operation. In this case high pitched barking commenced some three minutes after completion of the operation and continued for two minutes. No further signs of excitement occurred and recovery was satisfactory. One dog vomited two hours after operation.

Two dogs were given nalorphine (1 mg. per lb.) (2·2 mg. per kg.) intravenously at the end of the operation ; one was able to stand 10 minutes after the injection. In the other—a toxic and dehydrated bulldog—the nalorphine produced abolition of anaesthesia, increase in respirations from 18 to 28 per minute, and raising of the head in less than two minutes.

Additional treatment, as considered necessary, was given to the more severely ill dogs, and included dextran, glucose, normal saline, penicillin and streptomycin.

Post-Operative Deaths

Four animals died subsequent to operation.

Case 3.—An eight-year-old Chow showing symptoms of polydipsia and vomiting, temperature 103° F., pulse 160, and with the cervix closed, was able to stand 40 minutes after operation, but died about 12 hours later. *Post-mortem* examination revealed a blood clot of about 100 ml. surrounding the left ovary ; the liver showed large areas of necrosis and the heart, which was very flabby, also showed areas of degeneration.

Case 6.—A nine-year-old Cocker Spaniel had been ill for several days with listlessness, vomiting, an intermittent vulval discharge and a temperature of 102° F., with a pulse rate of 130 per minute. It was able to stand 70 minutes after operation but despite treatment died 11 days later. *Post-mortem* examination revealed chronic venous congestion and fatty degeneration of the liver. There was infarction of the kidneys, chronic nephritis and chronic verrucose endocarditis. Liquid, greenish pus, from which *Proteus* was isolated, was

present in the mediastinal lymph node and a small amount of purulent fluid had seeped into the thoracic cavity.

Case 12.—Death in a nine-year-old Pomeranian occurred unexpectedly about 12 hours after operation, and *post-mortem* examination revealed about 250 ml. of clotted blood in the peritoneal cavity, arising from the uterine branch of the ovaro-uterine artery.

Case 17.—A thin, dehydrated and weak eight-year-old Terrier with a persistent vulval discharge died about six hours after operation. On *post-mortem* examination the liver and kidneys showed marked toxaemic changes, and death was undoubtedly hastened by some post-operative haemorrhage from the left ovarian stump, although the ligature appeared to be in position and tight.

Discussion

Thiambutene premedication was satisfactory in all except one case, and a degree of narcosis in which the animals were unable to maintain the standing position occurred in all cases. This state was useful for the confirmation of the diagnosis in many cases, for the muscular relaxation facilitated palpation of the enlarged uterus through the abdominal wall. In addition it facilitated clipping and preparation of the operation site.

The main advantages, however, are the reduction in the quantity of the barbiturate anaesthetic subsequently required, the reduction in the total duration of the narcosis, and the elimination of post-anaesthetic excitement. These factors serve to lessen the risk of operation in pyometra cases, especially in those in which the animal is seriously ill at the time. There were no deaths attributable to the anaesthetic; an added safeguard of the method is that nalorphine can be employed as an antagonist should anaesthesia at any time become too deep or respirations too slow.

The method suffers from the disadvantage that in only 40 per cent. of the animals was the duration of anaesthesia sufficiently long for the operation to be completed. In the remainder, ether or additional thiopentone had to be employed while muscle and skin suturing was completed.

Summary

A method of producing anaesthesia in dogs systemically ill is described and details are given of 22 non-selected cases. Thiambutene (2 mg. per lb.) was injected intravenously and followed 10 minutes later by a small intravenous dose of thiopentone. The duration of anaesthesia was variable but averaged 29 minutes; the main advantage of this method is that recovery from the anaesthetic is rapid. No deaths attributable to anaesthesia occurred, but temporary spasticity and apnoea occurred in one bitch following the thiambutene injection.

Acknowledgments.—I wish to thank Professor J. G. Wright for his interest and advice during the work. My thanks are also due to Mr. A. C. Shuttleworth, who played a large part in the surgery, and to Mr. H. P. Harding and Miss N. Wickham, who made the *post-mortem* examinations and upon whose reports statements are made.

Reference

ALBRECHT, D. T., & BLAKELY, C. L. (1951). *J. Am. Vet. Med. Ass.* **119**. 429.

The Victoria Veterinary Benevolent Fund

A MEETING of the Council of the Victoria Veterinary Benevolent Fund was held at No. 10, Red Lion Square, London, W.C.1, on June 28th, when the following members were present :—

Mr. H. W. Dawes (President) in the chair, Professor T. J. Bosworth, Major J. J. Dunlop, Mrs. D. McNabb (President of the Ladies' Guild), Messrs. J. N. Ritchie, Arnold Spicer, and Captain Wm. Watt. Mr. C. W. Francis, Secretary, was in attendance.

1. *Welcome to President of the Ladies' Guild.*—The Chairman extended a warm welcome to Mrs. D. McNabb, who had travelled specially from N. Ireland to be at the meeting.

2. *Honours.*—The President referred to the recent Queen's Birthday Honours List, and on behalf of the Council congratulated Mr. J. N. Ritchie on being made a Companion of the Order of the Bath.

3. *Minutes.*—The Minutes of the previous meeting held on April 15th, 1955, having been published in *The Veterinary Record* were taken as read and signed as correct.

4. *Apologies for Absence.*—Letters of apology for absence were received from Professor J. McCunn, Captain J. McKinna, Captain T. M. Mitchell, Professors W. M. Mitchell, C. W. Ottaway, L. P. Pugh, Major C. W. Townsend, Miss O. Uvarov, Professor W. L. Weipers, Captain A. Whicher and Major W. H. Wortley.

5. *Correspondence* — (*a*) The Secretary read a letter dated June 24th, 1955, from the President of the Central Veterinary Society stating that Miss Olga Uvarov, M.R.C.V.S., had been nominated as their representative to serve on the Council in the place of Professor J. McCunn, who was now the Hon. Treasurer of the Fund.

(*b*) A letter was received from Mr. George Dunn stating that in view of his advancing years he would like to compound for his annual subscription with a single donation of £50.

The President informed the meeting that this gentleman, although not a member of the veterinary profession, had been a regular subscriber to the Fund for many years, and he would take pleasure in moving from the chair that Mr. George Dunn be elected a Life Member of the Fund. This was unanimously carried.

6. *Auditors' Fee.*—A communication from Messrs. Wilkinson, Chater & Co., the auditors of the Fund, requesting the consideration of an increased fee, was submitted and discussed.

On the proposition of Mr. A. Spicer, seconded by Captain W. Watt, it was resolved :

> That in view of the increased work involved, and having regard to the other reasons put forward, the fee for future annual audits of the accounts of the Fund be 20 guineas.

7. *Treasurer's Report.*—In the absence of the Treasurer, the Secretary reported that the balance standing in the Donations Account on June 14th,

amounting to £825, had in accordance with the Treasurer's instructions, been invested in the purchase of £871 16s. 7d. 3½ per cent. Funding Stock, 1999/2004.

It was resolved :

That the Treasurer's action be approved.

8. *Accountant's Report.*—The Secretary read the following report, which was approved, a vote of thanks being accorded to the respective donors.

Since the previous meeting of Council the following subscriptions and donations have been received :—

SUBSCRIPTION

	£	s.	d.
Western Counties Veterinary Association	2	2	0

DONATIONS

	£	s.	d.			
Cruft's Show	13	2	6			
DeVine, W. J. B.	5	5	0			
Dunn, George	50	0	0			
East Midlands Divn. Raffle at dance	18	13	0			
Essex Veterinary Society	5	0	0			
North of Scotland Division	10	0	0			
Royal (Dick) School Students' Representative Council—Ball	5	0	0			
Salisbury and South Wilts Canine Society	4	4	0			
Whicher, A. (three at 10s. 6d.)	1	11	6			
				112	16	0

COLLECTING BOXES

Baxter, A. J.	4	5	6			
Central Veterinary Society (2)	5	4	6			
Dumfries and Galloway Division	3	14	11			
Essex Veterinary Society	5	8	6			
Midland Counties V.M.A.	2	10	0			
				21	3	5
Total				£136	1	5

In regard to the appeal made by Mr. E. P. Barrett, M.R.C.V.S., for new subscribers, reported fully at the previous meeting, the Secretary stated that only one further Covenant had been received which was for £2 2s. 0d. This made a total of 18 new subscribers who had undertaken to pay their subscriptions under Deed of Covenant. Members of Council expressed their appreciation of the work done by Mr. Barrett.

9. *Cases.*—No. 284. Member, Aged 72. Application for grant to purchase clothing. The action of the Executive Committee in voting the sum of £25 in this case was duly confirmed.

No. 294. Daughter of late member. Aged 56. The Secretary reported that this case had been brought forward in accordance with instructions received at the meeting held in June, 1954. A fresh application giving her present financial position was submitted and discussed. In view of her health and her very small income, it was decided to increase the grant as from July 1st, 1955, to £2 per week for a period of 12 months. The case then to be reviewed again.

No. 295. Widow, aged 40. One daughter aged five. The Executive Committee reported that this recipient had now obtained an appointment as housekeeper to a doctor, and it would appear that she and her daughter were happily settled down. In the circumstances the Committee felt that the allowance should be reviewed.

It was resolved :

That for the three months commencing July 1st the grant be reduced to £1 per week and that the case be further considered at the next meeting.

10. *Date of Next Meeting.* It was resolved :

That the next meeting of Council be held on Friday, October 14th, 1955, at 2.30 p.m.

Immunisation Against the Distemper Complex

The following is quoted from the current issue of *The Field*:

Until recently, no immune gamma globulin has ever been available for animals. However, Dr. N. M. Larin, working at the Canine Research Station of the Animal Health Trust, has now overcome the difficulties of producing such a product.

Blood is collected from donor dogs, which have been " hyperimmunised " against distemper and canine virus hepatitis (Rubarth's disease) and also several bacteria which frequently complicate cases of distemper. The viruses used to " hyperimmunise " the dogs are isolated from material coming into the laboratory from natural cases occurring in the field. As a result, the antibodies contained in the gamma globulin are always specific against the current strains of virus concerned in present-day outbreaks. It is known that, like influenza, the strains of distemper virus change over the years to a considerable extent. Consequently it would be foolish to use a strain of virus which was causing disease, say, five years ago, to prepare immune gamma globulin against the strains which are active to-day.

There are many practical advantages of using immune gamma globulin over the now old-fashioned serum. Firstly, the immune gamma globulin, being the fraction of the hyperimmune serum containing the antibodies, is highly concentrated in comparison and, in fact, one dose of the white powder can be dissolved in as little as 1 c.c. of sterile distilled water, being then ready for injection, and is equivalent to 10 c.c. of serum.

Exhibitors have used immune gamma globulin before attending the larger dog shows, where the risk of infection is always present. The temporary protection acquired by the dogs has guarded against distemper and canine virus hepatitis.

The safety in use of the preparation is one of its outstanding features; it can be injected intravenously, and workers at the Canine Research Station have introduced it into the cerebrospinal fluid, in cases showing evidence of encephalitis due to distemper virus. Although this latter use is still experimental, the results have been favourable and no unpleasant side effects have been encountered.

New Members of the R.C.V.S.

The following graduates were admitted to membership of the Royal College of Veterinary Surgeons on the dates shown against their entries :—

ADAMS, Dan Vincent Neesom, 79, Barnburgh Lane, Goldthorpe, Rotherham, Yorks — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

AHMAD, Saeed, c/o 31, Jamia Street, McLeod Road, Lahore, Pakistan — July 7, 1955 *Lond.* B.V.Sc. (Punjab)

ANGUS, Kenneth William, 22a, Suffolk Street, Helensburgh, Dunbartonshire — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

ASHTON, Peter Kenneth, 10, Campbell Avenue, Edinburgh, 12 — June 30, 1955 *Edin.* B.Sc. (Edin.)

BAIRD, James Spence, Pear Tree Hill, Lisburn, N. Ireland — June 30, 1955 *Edin.*

BALLESTY, John Joseph, 21, Strand Road, Sandymount, Dublin — June 30, 1955 *Dub.*

BARNES, Pamela Cole (Miss) 162, Otley Road, Headingley, Leeds, Yorks — June 30, 1955 *Edin.* B.Sc. (Edin.)

BARR, George Lambert Braeheads, Fenwick, Ayrshire — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

BARR, John Douglas, 103, Townhead Street, Hamilton, Lanarks — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

BARR, Thomas Robert Bonner, Ainville, Kirknewton, Midlothian — June 30, 1955 *Edin.* B.Sc. (Edin.)

BARRY, Kieran Thomas, Paray-le-Monial, Kilsallaghan, Co. Dublin — June 30, 1955 *Dub.*

BATE, Terence Charles, Kingston House, Areley Kings, Stourport-on-Severn, Worcs — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

BAXTER, Christopher John, c/o Bridge House, Lechlade, Glos. — July 7, 1955 *Lond.*

BEDSON, Ivan Francis, 37, Woodruff Avenue, Hove, 4, Sussex — July 7, 1955 *Lond.*

BORA, Lilaram, Nizarapar, P.O. Tribune, Gauhati, Assam, India — July 7, 1955, *Liv.*

BORTHWICK, Ramsay, 38, Fairykirk Road, Rosyth, Fife — June 30, 1955 *Edin.*

BOWLES, Jeffrey, Hellesdon Lodge, Norwich, Norfolk — July 7, 1955 *Lond.*

BOYD, James Renwick, North Road, Ballymoney, Co. Antrim — June 30, 1955 *Dub.*

BOYD, Robert William, Limuru, Thetford Road, Watton, Norfolk — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

BRAZIER, John Frederick Henry 32, Browns Lane, Bentley Heath, Knowle, Warwicks — July 7, 1955 *Lond.*

BROWNELL, Thomas Arthur Stackallen, Navan, Co. Meath, Eire — June 30, 1955 *Dub.*

CALDWELL, Ben Arthur Wallace 13, Green Lane, Bolton, Lancs — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

CATHCART, Robert Austen The Benchil, Broughty Ferry, Angus — June 30, 1955 *Edin.*

CAWDERY, Michael Julian Hope, P.O. Box 581, Kisumu, Kenya — June 30, 1955 *Dub.*

CHANDLER, Norman, King's Head Hotel, Malton, Yorks — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

CHRISTIE, Ronald Forbes, 19, Viewfield Avenue, Aberdeen — June 30, 1955 *Edin.* B.Sc. (Edin.)

CLARKSON, Michael John, Flat 4, 163, Beresford Road, Oxton, Birkenhead — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

COPLEY, John David, 3, Brunswick Road, Pudsey, Leeds, Yorks — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

CORYN, Hugh Dermott, Mellow Purgess Farm, Stondon Massey, Brentwood, Essex — July 7, 1955 *Lond.*

COUTTIE, Peter, Carn Dearg, Gairloch, Ross-shire — June 30, 1955 *Edin.* B.Sc. (Edin.)

CROWLEY, John Patrick, Old Chapel Mills, Bandon, Co. Cork, Eire — June 30, 1955, *Dub.*

CURRAN George Davidson 2, Pendreich Drive, Bonnyrigg Midlothian — June 30, 1955 *Edin.*

DERBYSHIRE John Brian, Melandra, Clwyd Avenue, Prestatyn, Flints — July 7, 1955 *Lond.*

DICKSON, James, 91, Greenbank Road, Edinburgh, 10 — June 30, 1955 *Edin.*

DIER, Basil George Fielden, 1, New Road, Crowborough, Sussex — July 7, 1955 *Lond.*

DOWN, Brvan Collett, c/o Gillridge, The Ridgeway, Friston, Nr. Eastbourne, Sussex — July 7, 1955 *Lond.*

EARL, Catherine (Miss), Plains House, Welton, Carlisle, Cumberland — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

EDWARDS, Margaret Elaine (Miss), 46, Wind Street, Ammanford, Carmarthenshire — June 30, 1955 *Edin.* B.Sc. (Edin.)

EVANS, Edward Donald, 9, Bronwylfa, Llanymynech, Nr. Oswestry, Salop — July 7, 1955 *Lond*

EVANS, Richard Keith, The Glen, Harworth, Doncaster, Yorks — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

FARRIER, John Stott, Ford Farm, Ford Lane, Ford, Liverpool, 21 — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

FEATHERSTONE, Peter St. John's Lodge, St. John's Road, Driffield, E. Yorks — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

FINDLAY, Charles Richardson 18, Bellfield Road, Eddleston, Peebles — June 30, 1955 *Edin.* B.Sc. (Edin.)

FINN, Colin Arthur 53, The Fairway, Gravesend, Kent — July 7, 1955 *Lond.*

FLEURY, Arthur Thomas John c/o 187, Church Road, Upper Norwood, London, S.E.19 — June 30, 1955 *Dub.*

FORSYTH, Douglas Wilson, 46, North Street, Strichen, Aberdeenshire — June 30, 1955 *Edin.*

GARDEN, Sigurd, 110, Polwarth Terrace, Edinburgh, 11 — June 30, 1955 *Edin.* B.Sc. (Edin.)

GAUNT, John Leonard, Belmont, Llangain, Carmarthenshire — June 30, 1955 *Edin.*

GLAISTER, Alfred Ian Edmund Manor House, Ainsworth, Bolton, Lancs — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

GLEAVE, Peter London Road, Kettering, Northants — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

GRANT, Forbes, Earlsfield, Kennethmont, Aberdeenshire — June 30, 1955 *Edin.*

GRAY, John, Halstow, Tedburn St. Mary, Nr. Exeter, Devon — July 7, 1955 *Lond.*

GRAY, Robert Forbes, Knockcairn, Dundrod, Crumlin, Co. Antrim — June 30, 1955 *Dub.*

GREENWOOD, John, 63, Water Street, Earby, Nr. Colne, Lancs. — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

GULATI, Jaiant, c/o 7a, Shankar Seth Road, Poona, 2, India — July 7, 1955 *Lond.* B.V.Sc. (Punjab)

HAITH, Colin Frank 36, Laurel Avenue, Grove Hill, Middlesbrough, Yorks — 30 June, 1955 *Edin.* B.Sc. (Edin.)

HAMILTON, John Masterson, 52, Taylor Avenue, Kilmarnock, Ayrshire — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

HARESNAPE, Ian Clark, 15, West Drive, Cleveleys, Nr. Blackpool, Lancs. — July 1, 1955 *Glas.*

HARRIS, Margaret Doreen (Miss), 41, Clara Park, Neill's Hill, Belfast — June 30, 1955 *Dub.*

HARRIS, Robert Eric, 41, Clara Park, Neill's Hill, Belfast — June 30, 1955 *Dub.*

HARTIGAN, Patrick James, Grange, Kilmallock, Co. Limerick, Eire — June 30 1955 *Dub.*

HEPTINSTALL, Jack, Windrush, Blackmoor Lane, Bardsey, Nr. Leeds — July 7. 1955 *Lond.*

HUDSON, Gerald, 8, Lynwood Avenue, Middlesbrough, Yorks — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

HUDSON, John Robert, 34, Clarence Road, Walton-on-Thames, Surrey — July 7, 1955 *Lond.*

HUEY, John Alexander, Killigan, Knockahallet, Co. Antrim — June 30, 1955 *Dub.*

HUNTER, Allan Ramsay, 20, Anderson Terrace, Ardrossan, Ayrshire — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

HUTCHISON, James, 42, St. Andrew's Street, Kilmarnock, Ayrshire — July 1, 1955 *Glas.*

HYDE, Kathleen Barbara (Miss), 50, Friar Street, Reading, Berks — July 7, 1955 *Lond.*

IRVING, Patricia May (Miss) 24, Atkinson Road, Sale, Cheshire — June 30, 1955 *Edin.* B.Sc. (Edin.)

JAMES, Peter Hubert, Elmhurst, Elmer Road, Bognor Regis, Sussex — July 7, 1955 *Lond.*

JONES, David Fenwick, Temple Farm, Wolvey, Nr. Hinckley, Leics — June 30, 1955 *Edin.* B.Sc. (Edin.)

JONES, Thomas Hugh, Nantyci, Llysonnen Road, Carmarthen — July 7, 1955 *Lond.*

KEARNS, Michael Patrick, c/o Teemore, London Road, Beccles, Norfolk — July 7, 1955 *Lond.*

KERRY, John Branch, 108, London Road, Sittingbourne, Kent — July 7, 1955 *Lond.*

LEVACK, Myrtle Elizabeth Stewart (Miss), 37, Forest Road, Aberdeen — June 30, 1955 *Edin.*

LIFTON, John Milford, 15, Brunswick Road, Gloucester — July 7, 1955 *Lond.*

LOVE, James, Nether Johnstone Farm, Johnstone, Renfrewshire — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

MACASKILL, Donald William George, Tigh-Nuilt, Lochinver, Sutherland — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

MACKAY, Richard Ross 3, Shanks Avenue, Denny, Stirlingshire — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

MACKESSY, Edward Joseph, Knocknanuss, Kanturk, Co. Cork, Eire — June 30, 1955 *Dub.*

MANKTELOW, David Brian Saxby, 19, Village Way, Dulwich, London, S.E. 21 — June 30, 1955 *Edin.* B.Sc. (Edin.)

MARKHAM, Keith, c/o 49, Cambridge Street, Aylesbury, Bucks — July 7, 1955 *Lond.*

MARR, Ian Chalmers, 4, Benedict Road, Arbroath, Angus — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

MITCHESON, Joseph Albert Johnson Maiden Law Farm, Nr. Lanchester, Co. Durham — June 30, 1955 *Edin.* B.Sc. (Edin.)

MOFFAT, Scott Colin, 73, McEwen Drive, Inverness — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

MORTON, Robert Haddow, Townhead House, Newmilns, Ayrshire — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

MUIRHEAD, Roger Hedderwick, 10, Clarendon Place, Stirling — June 30, 1955 *Edin.*

NAYLOR, Dennis Campbell, Cilwych House, Bwlch, Nr. Brecon — July 7, 1955 *Lond.*

NOBLE, Rodney John, 24, Box Ridge Avenue, Purley, Surrey — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

NORMAN, Derek Alfred, 30, Orchard Avenue, West Byfleet, Surrey — July 7, 1955 *Lond.*

NUNN, Willima Richard, Polehore, Wexford, Eire — 30 June, 1955 *Dub.*

O'BRIEN, James Donal Patrick, Endfield, Woodhouse, Sheffield, Yorks — June 30, 1955 *Dub.*

O'DONNELL, Owen, Rose Hill, Burtonport, Co. Donegal, Eire — June 30, 1955 *Dub.*

ORHAN, Ahmed, Veterinary Service, Nicosia, Cyprus — July 7, 1955 *Lond.* B.V.Sc. (Cairo)

PANDIT, Chandrakant Narayan, A/3, Saraswat Co-operative Buildings, Alexandra Road, Gamdevi, Bombay, 7, India — July 7, 1955 *Lond.* B.V.Sc. (Punjab)

PARMINTER, Donald, Waberthwaite Rectory, Ravenglass, Cumberland — June 30, 1955 *Edin.* B.Sc. (Edin.)

PATERSON, Robert Campbell Gilmour, The Manse, Tighnabruaich, Argyll — June 30, 1955 *Edin.* B.Sc. (Edin.)

PILL, Alan Hugh, 51, Jesmond Road, Harrogate, Yorks — June 30, 1955 *Edin.* B.Sc. (Edin.)

PODD, Geoffrey Harold Manor Farm, Kessingland, Nr. Lowestoft, Suffolk — June 30, 1955 *Edin.* B.Sc. (Edin.)

POLLOCK, John Young, Hillcrest, Darvel, Ayrshire — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

POOLE, Anthony, 65, Eastgate, Pickering, Yorks — June 30, 1955 *Edin.* B.Sc. (Edin.)

POOLE, David Benjamin Russell, Abbey Lodge, Cahir, Co. Tipperary, Eire — June 30, 1955 *Dub.*

POTTS, Robert Redman, 13, Collison Avenue, Chorley, Lancs — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

RADITAPOLE, Norman Napo, P.O. Teyateyaneng, Basutoland, South Africa — June 30, 1955 *Edin.* B.Sc. (Edin.)

RAWSON-SHAW, Elizabeth Anne (Miss) P.O. Box 20, Eldoret, Kenya — July 7, 1955 *Lond.*

RODGER, David Sutherland, Corriebruach, Culzean Road, Maybole, Ayrshire — June 30, 1955 *Edin.*

ROTHWELL, Jack, 311b, Ainsworth Road, Radcliffe, Nr. Manchester — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

SANFORD, John, Bramside, Clays Hill, Steyning, Sussex — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

SCAMBLER, John Dodson Oakenhead, Whitechapel, Goosnargh, Nr. Preston, Lancs — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

SHIELDS, William Garnett, Cleveland House, Heighington, Darlington, Co. Durham — June 30, 1955 *Edin.*

SHRIMPTON, Douglas Frank, 30, Redbrook Road, Newport, Mon. — July 7, 1955 *Lond.*

SIMONS, Michael Anthony Peter, 105, South Norwood Hill, London, S.E.25 — July 7, 1955 *Lond.*

SMITH, Kenneth John, 13, Lord Street, San Fernando, Trinidad, B.W.I. — June 30, 1955 *Dub.*

SMITH, Maurice William, 65, Albert Drive, Woking, Surrey — July 2, 1955, *Liv.* B.V.Sc. (Liv.)

SPENCE, John Brian, 12, Market Place, Corbridge, Northumberland — June 30, 1955 *Edin.* B.Sc. (Edin.)

STEELE, Robert Barbour Tarbet, 14, Wheatland Drive, Lanark — June 30, 1955, *Edin.*

STUART, Noel Carson, West View, Douglas, Isle of Man — June 30, 1955 *Dub.*

SUTHERLAND, Ian Hutchison, 186, Morningside Road, Edinburgh, 10 — June 30, 1955 *Edin.* B.Sc. (Agric.) (Edin.)

TAYLOR, Eric Leslie George, 66, High Street, Witham, Essex — July 7, 1955 *Lond.*

TAYLOR, John Caird, 40, Warrender Park Road, Edinburgh — June 30, 1955 *Edin.*

TEALE, Peter Chandler, Windyridge, Ninhams Wood, Farnborough, Kent — June 30, 1955 *Edin.*

TENNANT, Laurence Douglas, P.O. George, Cape Province, South Africa — June 30, 1955 *Edin.*

THORPE, Ernest, 4, Tulloch Street, Glasgow, S.4 — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

THURLEY, Thomas Manley, 22, Shakespeare Road, Ealing, London, W.7 — July 7, 1955, *Lond.*

TOWNSEND, Miles, 22, Inverness Avenue, Westcliff-on-Sea, Essex — July 7, 1955 *Lond.*

TUITE, Michael, Inneskeen, Dundalk, Co. Louth, Eire — June 30, 1955 *Dub.*

VINSEN, Michael Anthony, 5, Queensway, Lincoln — July 7, 1955 *Lond.*

WALL, Leonard John Travena, Windy Bush, Callington Road, Saltash, Cornwall — July 7, 1955 *Lond.*

WALLIS, Alan Scott, Briarcroft, Marlborough Crescent, Latchford Without, Warrington, Lancs — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

WALTERS, Thomas Melville Howard, Southwood, Roch, Haverfordwest, Pembs — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

WARD, Anthony, 17, Holne Chase, London, N.2 — July 7, 1955 *Lond.*

WATT, Ian Milne, Fernbank, Kintore, Aberdeenshire — June 30, 1955 *Edin.* B.Sc. (Edin.)

WHEELER, Alan James, Parkhurst Dairy, Newport, Isle of Wight — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

WHITAKER, David Lloyd, Ermin House, Syde, Cheltenham, Glos — July 7, 1955 *Lond.*

WICKENS, Gillian Olive (Miss), 8, Field Head Lane, Birstall, Nr. Leeds, Yorks — July 9, 1955 *Glas.* B.V.M.S. (Glas.)

WILLIAMSON, Dudley Charles 574, London Road, Slough, Bucks — July 7, 1955 *Lond.*

WILSON, Edith Doris (Miss), 9, Temple Road, Epsom, Surrey — July 7, 1955 *Lond.*

WITTRICK, David Antony, 8, Broadgate, Somerset Road, Huddersfield, Yorks — June 30, 1955 *Edin.* B.Sc. (Edin.)

WRIGHT, Clifford Leslie, 8a, Princes Parade, Muswell Hill, London, N.10 — July 2, 1955 *Liv.* B.V.Sc. (Liv.)

Current Literature

DIGEST

Tetracycline, a new antibiotic

Tetracycline, which is reviewed by Davidson *et al.* (1955), is a new addition to the range of antibiotics available for the treatment of animals. It is chemically related, as its name implies, to the established antibiotics chlortetracycline and oxytetracycline, better known as aureomycin and terramycin, to which it has a similar bacterial spectrum, except for some quantitative differences. A yellow crystalline compound, tetracycline is soluble in water, and can be administered by mouth. After absorption from the alimentary tract it reaches its maximum blood level two hours after administration. The dosage range depends upon the animal species, and is of the order of 5 to 50 mg. per pound bodyweight per day. The authors indicated that some possible advantages of tetracycline over the related antibiotics are its stability, better ability to penetrate the meningeal barrier, and its very low mammalian toxicity.

A report on the behaviour of tetracycline hydrochloride under conditions of practice, is given by Konde, (1955) who used the antibiotic on 28 cats. 21 of these animals were suffering from symptoms of enteritis, and, or, broncho-pneumonia, which were classified under heading of panleukopenia and "pneumonitis." The tetracycline was administered orally at the dosage rate of 10 mg. per pound, or by intramuscular injection at 5 mg. per pound. This treatment was continued daily for three to four days, by which time 18 out of the 21 cats had recovered. A favourable response to the antibiotic was also observed in cases of cystitis, and diarrhoea due to an unidentified cause. Side effects attributed to the antibiotic were noted in four cats, and were manifested by vomiting, shivering, and sleepiness. However, in no case was the reaction sufficiently severe to cause cessation of the treatment.

D. W. J.

References

DAVIDSON, J., HAAS, K., & STOCKING, G. (1955). *Vet Med.* **50.** (5). 215–16.
KONDE, W. (1955). *J.A.V.M.A.* **126** (939). 470–71.

Pig Lungworms

The lungs of over 20 per cent. of 1,722 pigs slaughtered for bacon and examined *post-mortem* by Dunn *et al* (1955) were infected with lungworms. In the majority of cases the infection consisted of 10 to 50 metastrongyles in the caudal tip of the diaphragmatic lobe lying in thickened bronchioles surrounded by areas of emphysema. The authors suggest that the worms are eventually cleared from all parts of lungs by coughing except for the least accessible regions of the diaphragmatic lobe. The worms in this area have therefore escaped expulsion and represent the remains of a more general infestation. The economic importance of the lungworm infestation was not apparent from this survey because the metastrongyles were detected in pigs in good and poor condition. Nevertheless the damage caused by the lungworms in young pigs could be severe enough to induce pneumonic lesions with the appropriate clinical symptoms. The detection of the lungworms in the living animals by the examination of faecal samples was not satisfactory until magnesium sulphate was used as the flotation medium instead of common salt. 220 earthworms, which are the intermediate hosts of the *Metastrongylus* spp., were collected from an

nfected farm and 20 per cent. were found to contain nfective lungworm larvae. Observation revealed that he pigs, including sucklings, devoured the earthworms with alacrity and relish.

D. W. J.

Reference

DUNN, D. R., GENTLES, M. A., & WHITE, E. G. (1955). *Brit. Vet. J.* **111** (7). 271–281.

ABSTRACTS

The Wintering of Blackface Mountain Ewe Lambs. BROWNLIE, W. M. (1954). *Brit. Vet. J.* **110,** 447–459.

On many hill farms a choice has been made between wintering the ewe lambs on the natural hill grazings and off-wintering on sheltered lowland grazings. Experienced stockmen usually favour off-wintering, which usually leads to lowered mortality rates and to better growth, with the likelihood of a better wool clip at first shearing and more suitable stock for breeding as shearlings. Off-wintering therefore permits a more severe culling of ewe lambs—fewer being necessary to ensure adequate replacement—while it leaves more keep on the hill for the ewe stock. Off-wintering does, however, cost something of the order of 30s. a head at the present time, and entails the risk that full acclimatisation may not be retained.

The trial reported in the present paper involved 48 Blackface mountain ewe lambs from a hirsel on a farm on the Ardnamurchan peninsula on the west coast of Scotland. Two comparable groups each of 24 were selected, one being wintered on the native unimproved hill grazings without supplementary feeding and the other on tick-free grassland on the east coast. There was no winter mortality in either group, but the lambs wintered on the hill lost 14.8 per cent. in weight, whereas those off-wintered gained 6.8 per cent. in weight, between October and April. The hill group gained much more rapidly during the following summer, although at 18 months and at 30 months there were still differences between the groups, particularly in the case of the initially lighter animals. Differences in mortality, fertility and rearing ability to the end of the first lactation, however, did not reveal any significant differences, and it seems clear that in order fully to justify itself, off-wintering under these conditions would have to be of good quality. It is tentatively suggested that " a weight increase of not less than 15 per cent may be necessary to raise the average size of the ' off-wintered ' lambs permanently above those wintered on the hill land. With such a gain subsequent differences in breeding performance might be determined."

A. N. W.

A Clinical and Pathological Study of Vitamin A Deficiency in Calves. LANGHAM, R. F., & HUFFMAN, C. (1954). *Mich. St. Coll. Vet.* **14.** 122-129.

The experiment was designed to produce uncomplicated Vitamin A deficiency in calves, by including oat hay in the basal diet in order to avoid multiple deficiencies due to ruminal inhibition in the absence of hay. Six calves were given the Vitamin A deficient diet, but two of them received 250,000 I.U. Vitamin A weekly as shark liver oil. Having obtained their dam's colostrum the calves were put on the diets until 12 months of age. During the first six months they did not consume sufficient digestible nutrients to provide satisfactory weight gains. After adding cobalt to the diet both groups increased their daily rate of gain by nearly a pound a day; more than doubling the previous rate.

The plasma Vitamin A figures were 8.6 to 13.7 μg. per 100 ml. in the controls compared with 3.9 to 10.3 μg. per 100 ml. in the deficient group. There was little difference in the blood pictures, and the plasma carotene values. The most important changes were in the eyes. In order of occurrence in the Vitamin A deficient calves, there was failure of the iris to contract, night blindness, blurring of the optic discs, and fading of the tapeta lucida. The calibre of the blood vessels was reduced, and they became more tortuous. The optic nerves became constricted as they passed through the optic foramen, becoming atrophied and replaced by fibrous tissue. This caused total blindness. There was also syncope and inco-ordination, with unconsciousness for 30 to 60 seconds, lack of sexual libido and spermatogenesis in the male, but metaplasia of epithelium was only present in a few organs.

Certain manifestations usually attributed to Vitamin A deficiency, *e.g.* rough coats, skin lesions, lacrymation, scours, anorexia, oedema, weakness, urinary calculi, and opacity and ulceration of the cornea were absent in this experiment. Their elimination is attributed to maintenance of normal rumen fermentation with hay.

C. M. E.

Terramycin and Foot-Rot in Sheep. HARRISS, S. T. (1955). *Brit. Vet. J.* **3,** 212-214.

As the result of carefully controlled experiment under severe test conditions, Harriss claims terramycin, in the form of an ointment containing 5 mg. terramycin and 10,000 units polymycin B. sulphate per 1 gramme to be highly successful in the treatment of foot-rot in sheep.

The ointment, dispensed in tubes, was rubbed into the affected feet with the finger after careful paring and wiping. In addition the non-infected feet were subjected to immersion in a 10 per cent. copper sulphate foot-bath for 10 minutes.

The cost is estimated at 2½d. a sheep per application.

Abstractor's Note.—As there are grounds for believing that infection may remain unnoticed deep beneath the apparently healthy horn for a considerable period of time, the value of these results would have been enhanced had the treated sheep been retained on clean ground and observed over an even longer period. This would, nevertheless, appear to be a step forward in the treatment of this very troublesome condition.

News and Comment

DEPUTY-DIRECTOR OF PIRBRIGHT

Now that the major building and development schemes at the Research Institute (Animal Virus Diseases), Pirbright are nearing completion, the governing body have felt the need to create the post of deputy-Director. This has been offered to, and accepted by Dr. W. M. Henderson as from July 1st, 1955. As most readers will know the new deputy-Director has been a distinguished member of the scientific staff of the Institute for some time. He is a member of the Council of the B.V.A.

UNIVERSITY NEWS

Edinburgh

At a Graduation Ceremonial held on July 20th, the following Degrees were conferred by the University of Edinburgh:—

Ph.D., in the Faculty of Medicine: Lachlan William Macpherson, M.R.C.V.S., D.V.S.M. Thesis: "The nature and biological properties of Newcastle disease virus."

B.Sc. in Veterinary Science: Robert Austen Cathcart, M.R.C.V.S.

SWINE FEVER RESTRICTED AREA

The Ministry of Agriculture, Fisheries and Food announces that the increase in the incidence of swine fever in the counties of Stafford, Warwick and Worcester has made it necessary to extend one of the areas scheduled in the Swine Fever (Infected Districts) Order of 1955 to include those counties. The relative amending Order came into operation on July 22nd.

MYXOMATOSIS

In the House of Commons on July 20th, Mr. Hurd asked the Minister of Agriculture, Fisheries and Food to what extent myxomatosis has spread this summer; and what further indications have been observed of wild rabbits developing immunity in districts where all the rabbits were cleared last year.

Mr. Nugent replied: During the summer, myxomatosis has spread to many previously unaffected districts in the Midlands, the North of England and Scotland. There appears to be no significant change in the development of immunity by wild rabbits since the reply given to my hon. Friend on June 16th.

PERSONAL

Births

CARTER.—On July 23rd, 1955, at Chelmsford, to Valerie, wife of Henry E. Carter, M.R.C.V.S., 121, Broadfield, Harlow, Essex, a daughter, Susan Valerie.

CROFT.—On July 21st, 1955, to Pauline (*née* Timms), wife of David C. Croft, B.V.SC., M.R.C.V.S., 27, Lonsdale Road, Leamington Spa, a son.

NISBET.—On July 17th, 1955, to Joan, wife of Donald I. Nisbet, PH.D., B.SC., M.R.C.V.S., 10, March Road, Blackhall, Edinburgh, a daughter.

R.C.V.S. OBITUARY

We record with regret the deaths of the following members of the profession:—

MACLEAN, Duncan, M.R.C.V.S., Balevullin, Tiree, Argyllshire. Graduated Glasgow, December 15th, 1932. Died July 12th, 1955, aged 54 years.

OXLEY, Henry Elmcroft, Church Street, Cannock, Staffs. Graduated Edinburgh July 12th, 1945. Died July 22nd, 1955, aged 35 years.

MR. H. OXLEY

Mr. W. B. Brownlie writes:—

As Mr. Oxley's partner his tragic and untimely death has come as a great shock to me. He had been in poor health lately.

He was always cheerful and energetic, and conscientious to a fault. As a veterinary surgeon he had a great future before him owing to his increasing reputation and popularity. My deep sympathy goes out to his widow and two young children.

CAPT. J. R. BARKER

As we go to press we learn with deep regret of the death of Capt. J. R. Barker on July 28th. We shall publish a memoir next week but in the meantime his many friends will wish to know that a Memorial Service will be held in St. Peter's Church, Hereford, at 2.30 p.m. next Tuesday, August 2nd.

COMING EVENTS

September

4th to 10th. 73rd Annual General Meeting and Congress of the British Veterinary Association at Belfast.

8TH (THURS.). Summer General Meeting of Eastern Counties Veterinary Society at Cambridge. Tour of Veterinary School. President's Invitation Tea. Shipley Bowls Tournament.

ADDRESSES OF DISEASE INFECTED PREMISES

The list given below indicates, first, the county in which are situated the premises on which disease has been confirmed, followed by the postal address and date of outbreak.

Anthrax

Lanarks. Earlsmill Farm, Douglas (July 21).

Northants. Wheelwrights Yard, Yarwell (July 19).

Salop. Rodington House, Rodington, Shrewsbury (July 21st).

Wilts. Place Farm, Tisbury, Salisbury (July 21).

Atrophic Rhinitis

Hants. Padnell Farm, Cowplain, Portsmouth.

Fowl Pest

Essex. Hillcrest, Main Road, Broomfield, Chelmsford (July 21); 252, Woodward Road, Becontree, Dagenham (July 25).

Hants. 372, London Road, Waterlooville, Portsmouth (July 22).

Kent. 8, Hazeldene Road, Welling (July 20); Water Mill, Great Chart, Ashford (July 22).

Middx. 12, Steeds Road, London, N.10 (July 22).

Norfolk. Kings Head, Banham, Norwich (July 21); High Street, Fincham, Kings Lynn (July 22); Brisley Green, East Dereham; Overcross, Banham, Norwich; The Old Rectory, Buwell, Norwich (July 24).

Notts. 47, Brookdale Road, Sutton in Ashfield (July 23).

Surrey. Alfriston, West Farm Avenue, Ashstead (July 23).

Sussex. Bjogenor, Easebourne, Midhurst (July 19).

Yorks. 23, Malt Kiln Lane, Castleford (July 20).

Swine Fever

Ches. Sydney House Farm, Sydney, Crewe (July 22); Miss Lane Cottage, Moss Lane, Leighton Crewe (July 25).

Clackmannan. Westerton Farm, Tillicoultry (July 25).

Denbigh. Borras Head Farm, Rhonessney, Wrexham

Derbys. The Croft, Fritchley, Derby; The Green, Fritchley (July 25).

Durham. 9, Allotment, Bearpark; 22, Taylor Avenue, Barpark Colliery (July 25).

Essex. Pound Farm, Thorrington, Colchester; Little Montroe, Birchwood Road, Purleigh (July 20).

Lanarks. Slakiewood Cottage, Muirhead, Glasgow (July 20).

Lancs. Mill Farm, Clifton, Kirkham, Preston (July 20); The Piggery, The Nook, Staining, Blackpool; 20, Willen Bank, Staining, Blackpool (July 25); Little Blacksticks Farm, Chipping, Preston (July 26).

Lincs. Bridge Angle Farm, Holmes Road, Kirton Holme, Boston (July 25).

Norfolk. 39, Wroxham Road, Sprowston (July 23); Southey Road Farm, Feltwell, Thetford; Inglesborough Farm Holdings, West Walton, Wisbech; Perry's Lane Farm, Cawston, Norwich; Weasenham St. Peter, Kings Lynn (July 25).

Northants. The Firs Farm; Helliden, Daventry; St. Andrews Road Allotments (July 22).

Salop. Park Farm, Acton Burnell, Shrewsbury; Grange Farm, Atcham, Shrewsbury (July 22).

Suffolk. Hermitage Farm, Sproughton, Ipswich (July 20); Whitehouse Farm, Whatfield, Ipswich (July 26).

Warwick. 196, Marston Lane, Bedworth (July 20); Lime Tree Estates, Near Waterworks, Bedworth, Nuneaton; 158, Newton Road, Bedworth, Nuneaton (July 23); 9, Mill Crescent, Kineton, Warwick (July 25).

Worcs. 37, Baccabox Lane, Hollywood, Birmingham; Bell Green Lane, Four Hill, Kings Norton (July 20).

Yorks. Greasborough Road Land Settlement, Rotherham; 68, Orchard Street, Masborough, Rotherham (July 25).

CORRESPONDENCE

The views expressed in letters addressed to the Editor represent the personal opinions of the writer only and their publication does not imply endorsement by the B.V.A.

DIPLOMA OR DEGREE?

Sir,—It will doubtless come as a shock to many members of the profession to be told that they do not hold a degree but only a diploma and that the members qualifying in future will hold a higher degree than those who have qualified in the past. The word "diploma" has never been used in the past and it has only been brought in since the profession has been amalgamated with the universities.

In the Fellowship certificate "diploma" is not mentioned whereas "degree" is very definitely mentioned. It may be as well to quote:

"Royal College of Veterinary Surgeons. Whereas by Supplemental Charter granted by The Queen on the 23rd day of August 1876, the Council of the Royal College of Veterinary Surgeons has been empowered with a view to the advancement of Veterinary Science to create a higher *degree* than Membership to be entitled Fellowship. Now know all, etc."

In view of the above wording it is difficult to see how anyone can say that the Royal College of Veterinary Surgeons cannot grant a degree but only a diploma.

Yours faithfully,

ARNOLD SPICER.

Crabwood,
Oxted,
Surrey.

July 20th, 1955.

"A WELL OF ENGLISH UNDEFILED"

Sir,—"Vets"—like disputants—when reasons fail, have one sure refuge left—and that's to wail.

Of all those arts in which the wise excel, Nature's chief masterpiece is writing well. The subtlest tempter has the smoothest style; sirens sound sweetest when they would beguile. 'Tis not enough no harshness gives offence; the sound must seem an echo to the sense.

Truths that the learn'd pursue with eager thought are not important always as dear bought. To some the sounding jargon of the schools, seems what it is; a cap and bell for fools. Fair words may please the ear yet not with wisdom tally; their limpid flow needs labour's help, maybe obstetrically.

If base the style and manner meane, 'tis not beyond recall; there's one thing left; try writing sense, or else—don't write at all.

Yours truly,

R. H. SMYTHE.

P.S.—Never slang a cabman; he can beat you.

6, Peveril Drive,
The Park,
Nottingham.

July 25th, 1955.

PROBLEMS OF DAIRY FARMING

Sir,—Although not a mechanic I do know that if I run my car on the wrong mixture I get trouble and the engine is slowly ruined. In the same way I often wonder if agriculturists generally have reflected with sufficient care upon the problems arising from the use of the "wrong mixture" in (a) the manure put on the land (b) the seeds used for reseeding—for grazing and hay, or (c) the food given to the animal.

Sterility, mastitis and mineral imbalances (not necessarily mineral deficiencies) are on the increase, and I predict still more trouble if attention is not given to the above matters. More and more expensive modern drugs are being made, but what is the use of producing these for overworked animals, fed on too rich a mixture, and needing decarbonising (new liver) or new valves (kidneys). In many quarters there seems to be an excessive addiction to compost, or to artificial manure and to the uneconomic low, and the (?) profitable very high protein feeders. It seems timely to plead that these cults should be reduced to wiser proportions. If this could be done, and the balance of minerals etc. in the animal's body returned to normal, then we should have reasonably healthy animals for which our research workers could evolve drugs to cure such stubborn conditions as mastitis—instead of seeing them getting worse.

It will not be long, at the present rate, before the dairying industry will find itself financially embarrassed by sterility, mastitis and mineral upsets. Who will suffer most? The veterinarians and future dairy farmers. I think we, as a profession, should take steps to warn the agricultural industry which, luckily, is still made up of a majority of sane practical men. of the danger of allowing the minority, who are thinking of their selfish present, to endanger the stamina of a large number of animals, and thus prove that we are, what we always pride ourselves to be, the farmers' friends.

Yours faithfully,

DOUGLAS R. WOOD.

1, Western Road,
Crediton,
Devon.

July 19th, 1955.

HUMANE DESTRUCTION OF CRUSTACEANS

Sir,—I am enclosing a pamphlet issued by the R.S.P.C.A. which should be of interest to the profession. I have seen this method of killing crustaceans very strongly recommended in a Danish cookery book. This actually goes a little further in the interests of humanity in that it recommended that a grid should be fitted into the bottom of the boiling pan to keep lobsters and crabs away from the bottom of the pan when the flame is on it.

Yours faithfully,

THOMAS LISHMAN.

23, Queen's Gate Gardens,
London, S.W.7.

July 22nd, 1955.

The pamphlet enclosed by our correspondent described experiments carried out by Joseph Sinel formerly of the marine biological laboratory of Jersey. The results indicated that the plunging of crustaceans into boiling water caused great suffering, while their immersion in cold water, gradually heated, brought about apparently painless unconsciousness and death. These conclusions were supported by Sir Peter Chalmers Mitchell.—*Editor.*

ADVERTISER'S ANNOUNCEMENT

Allen & Hanburys Ltd. announce Procaine Penicillin Intramammary Injection, A & H which has a special base developed in the company's research laboratories. This new base gives a prolonged concentration of penicillin in the udder. Procaine Penicillin Intramammary Injection is packed in collapsible tubes with a new quick release cap.

DISEASES OF ANIMALS ACT, 1950—GREAT BRITAIN

Summary of Returns of Confirmed Outbreaks of Scheduled (Notifiable) Diseases

Period		Anthrax	Atrophic Rhinitis	Foot-and-mouth	Fowl Pest	Sheep Scab	Swine Fever
16th to 30th June, 1955		17	1	—	24	—	78*
Corresponding period in	1954	6	—	—	13	—	103
	1953	20	—	1	135	—	110
	1952	12	—	43	7	—	27
1st January to 30th June, 1955		442	1	6	271	—	848
Corresponding period in	1954	150	3	12	541	—	824
	1953	434	—	26	508	—	1,733
	1952	274	—	408	121	1	557

* One of these outbreaks occurred in the previous period.

TUBERCULOSIS (ATTESTED HERDS) SCHEMES

The number of Attested Herds, *i.e.*, herds officially certified as free from Tuberculosis as at 30th June, 1955 was as follows :—

England	Wales	Scotland	Total (Great Britain)
74,837	33,181	34,529	142,547